

Fig. 1

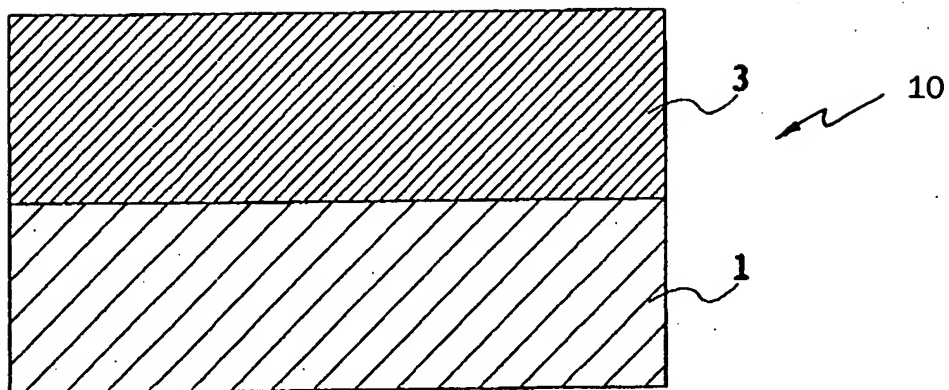


Fig. 2

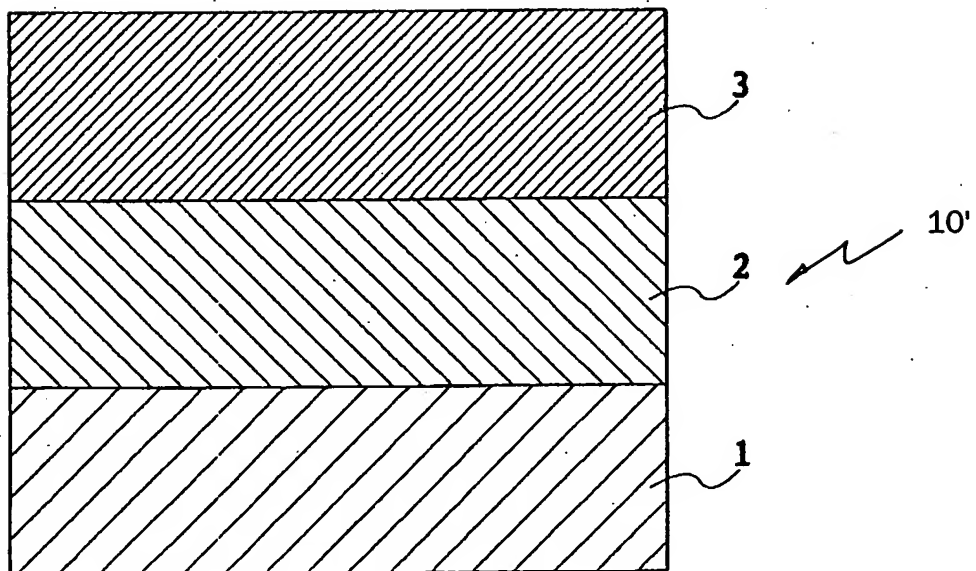
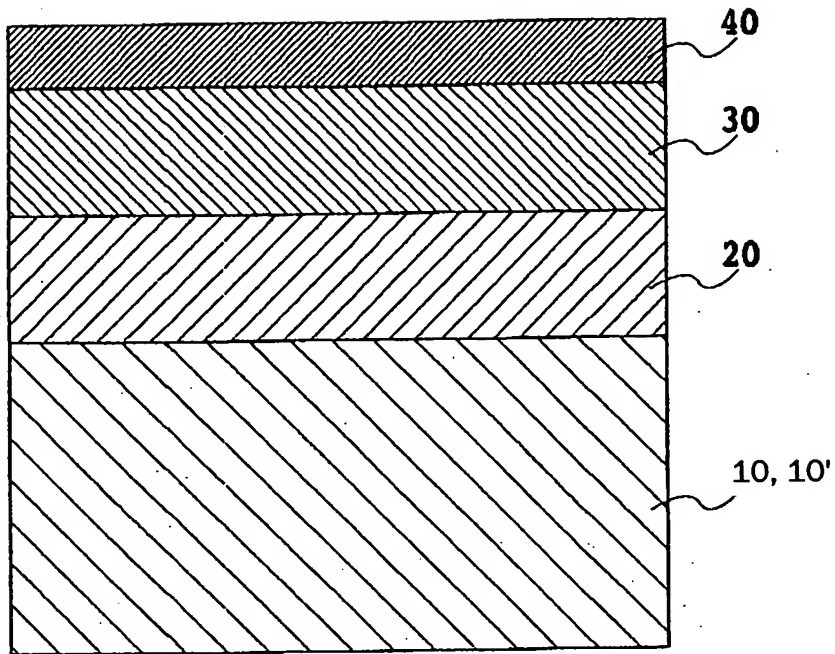


Fig. 3



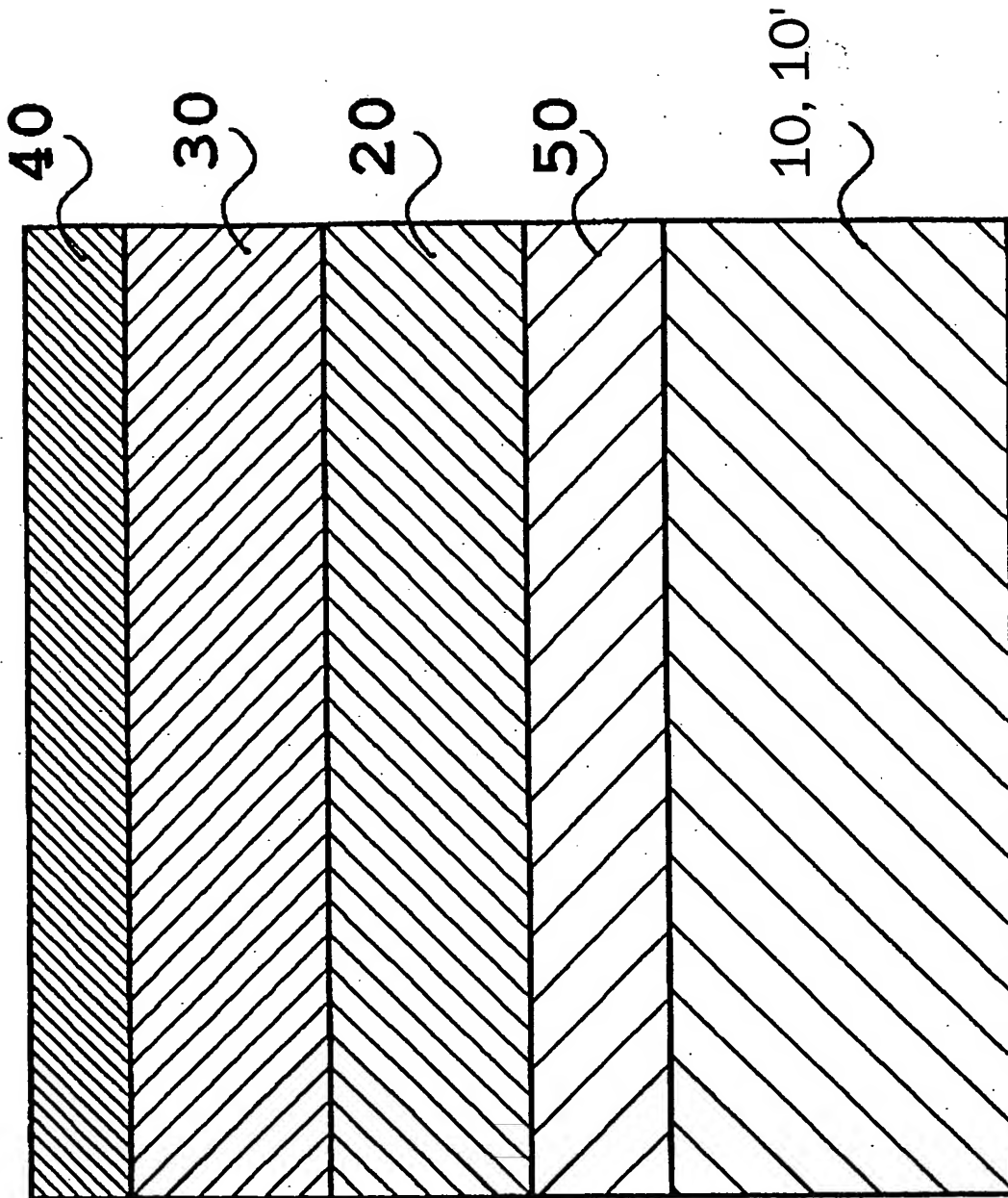
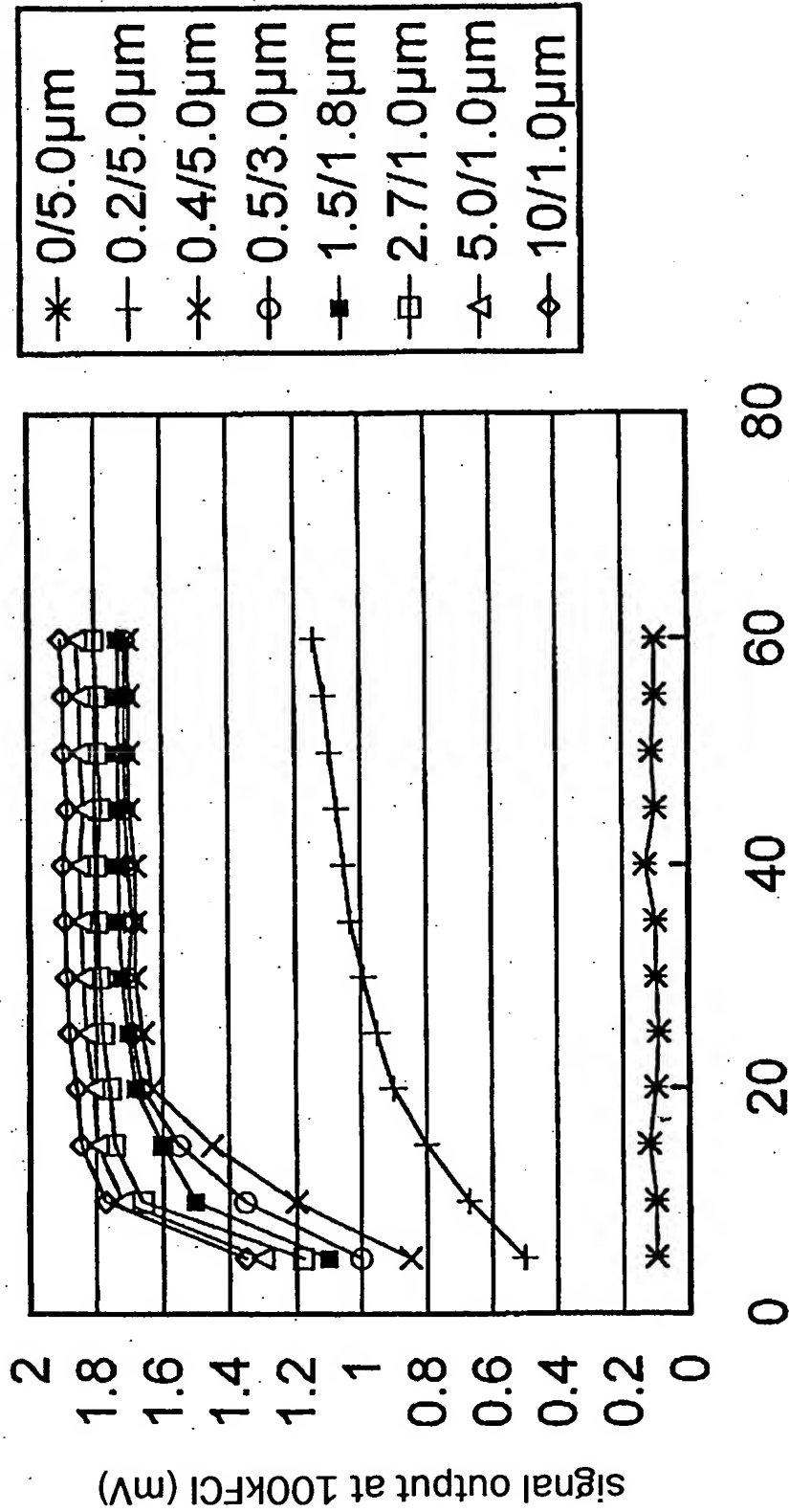


Fig. 4

soft magnetic / nonmagnetic
 underlayer / underlayer



write current (mA)

Fig. 5

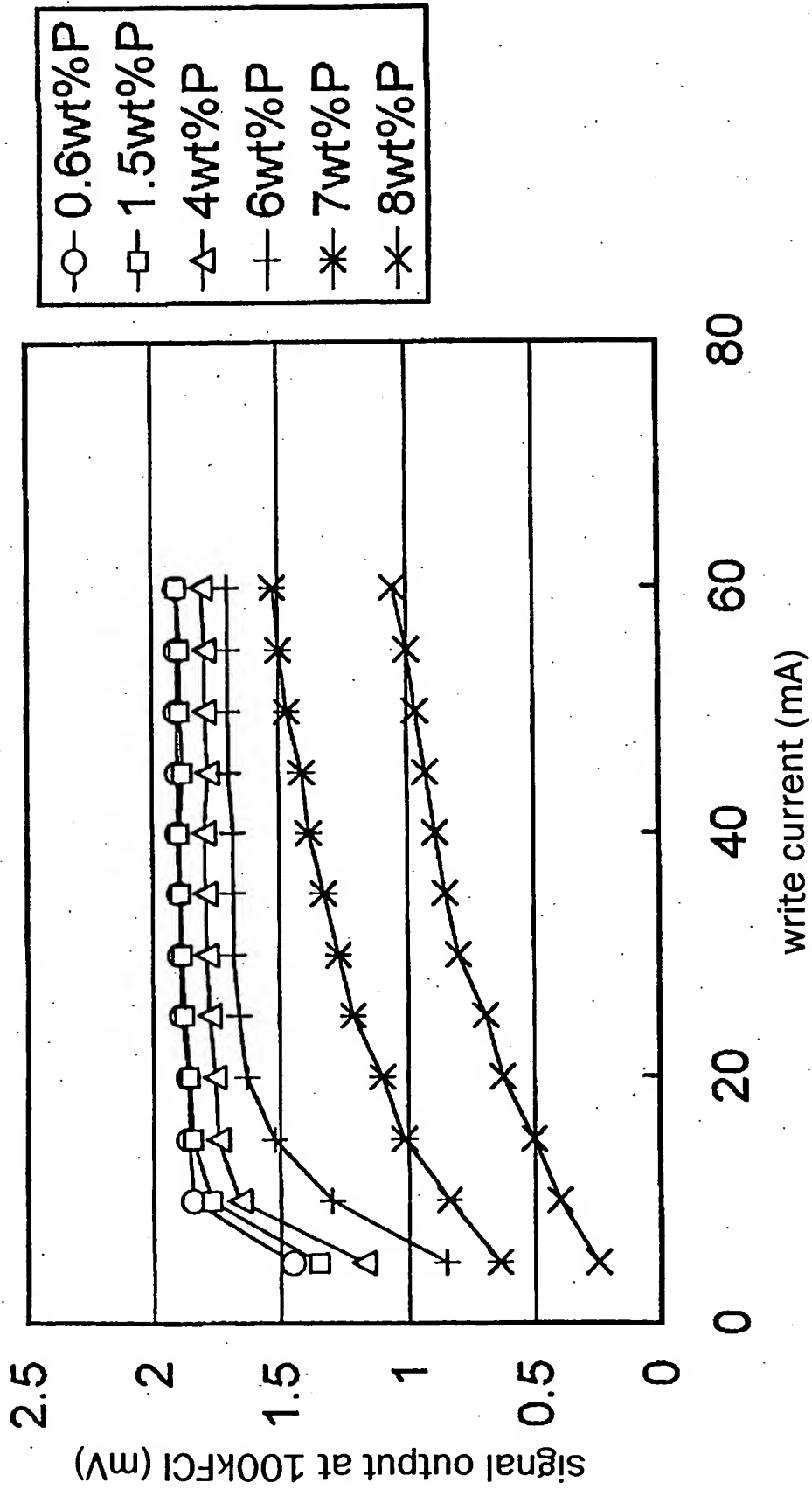


Fig. 6

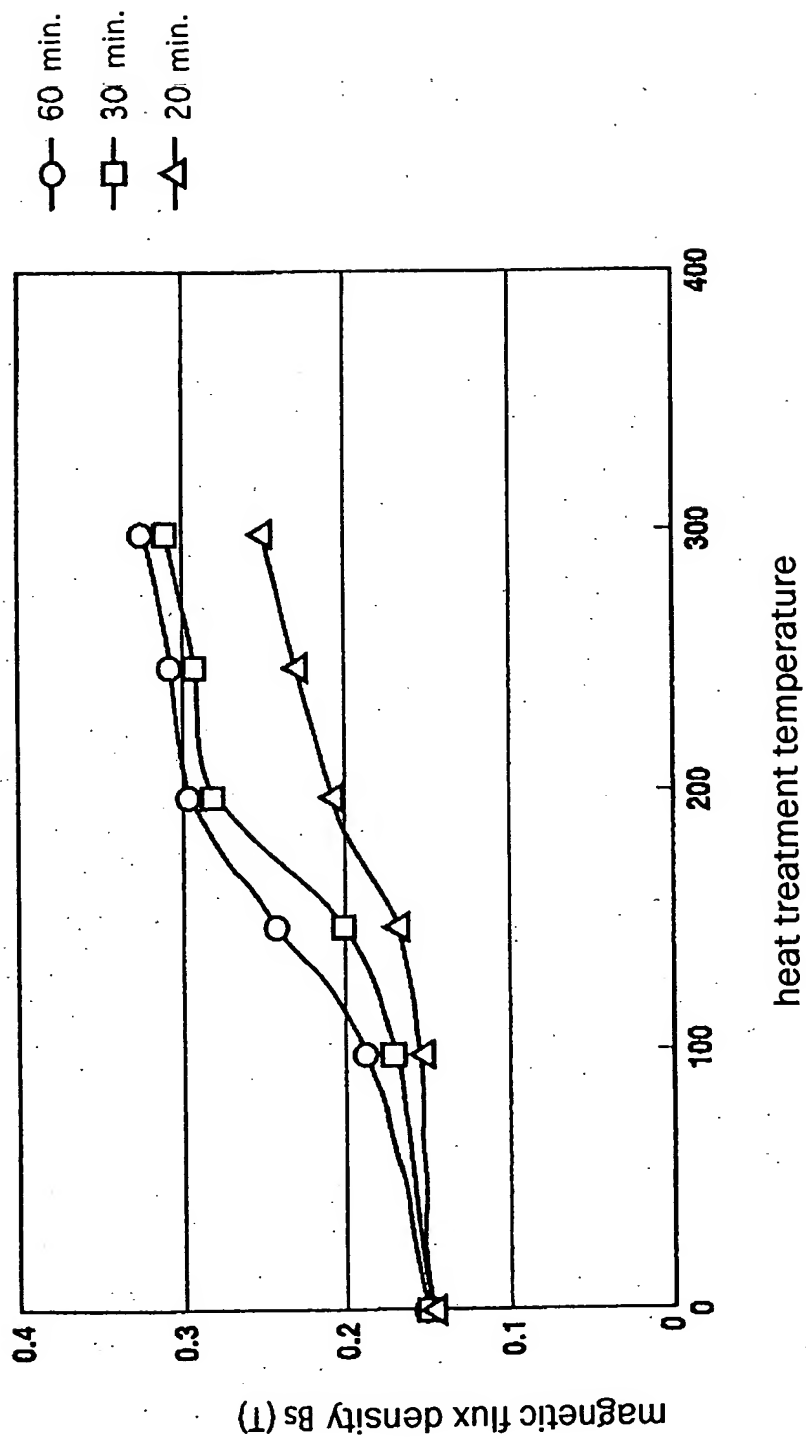


Fig. 7

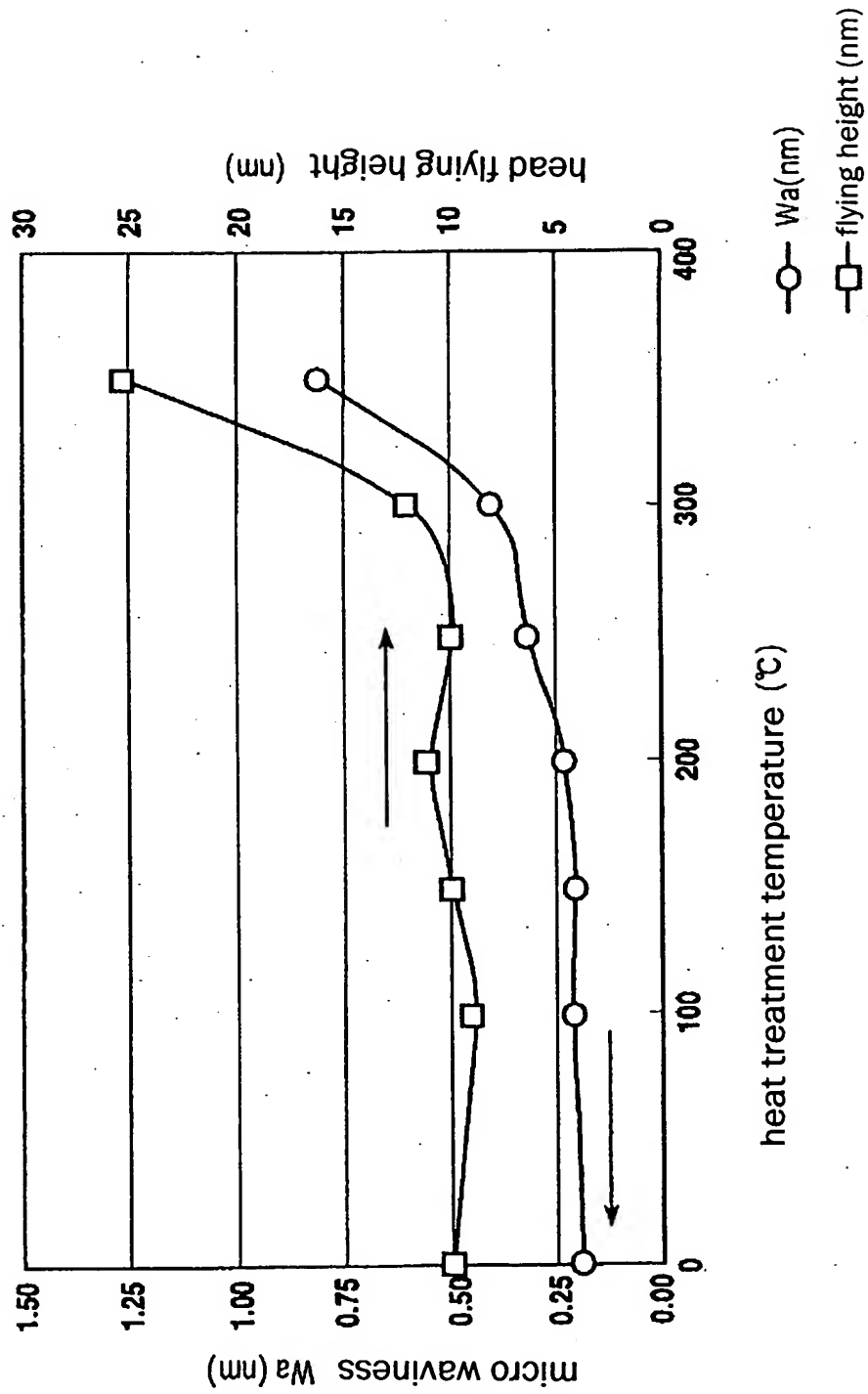


Fig. 8

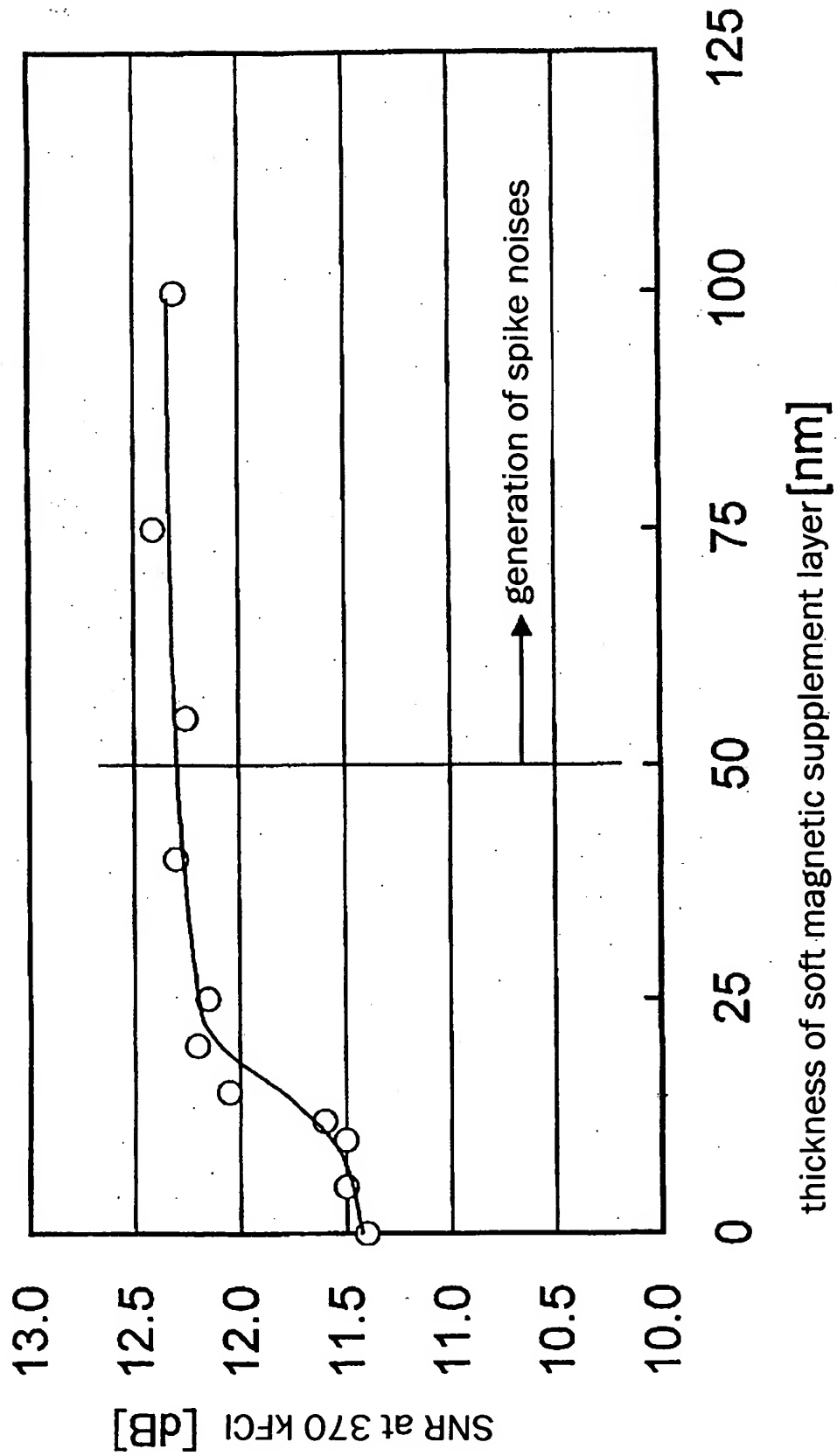


Fig. 9

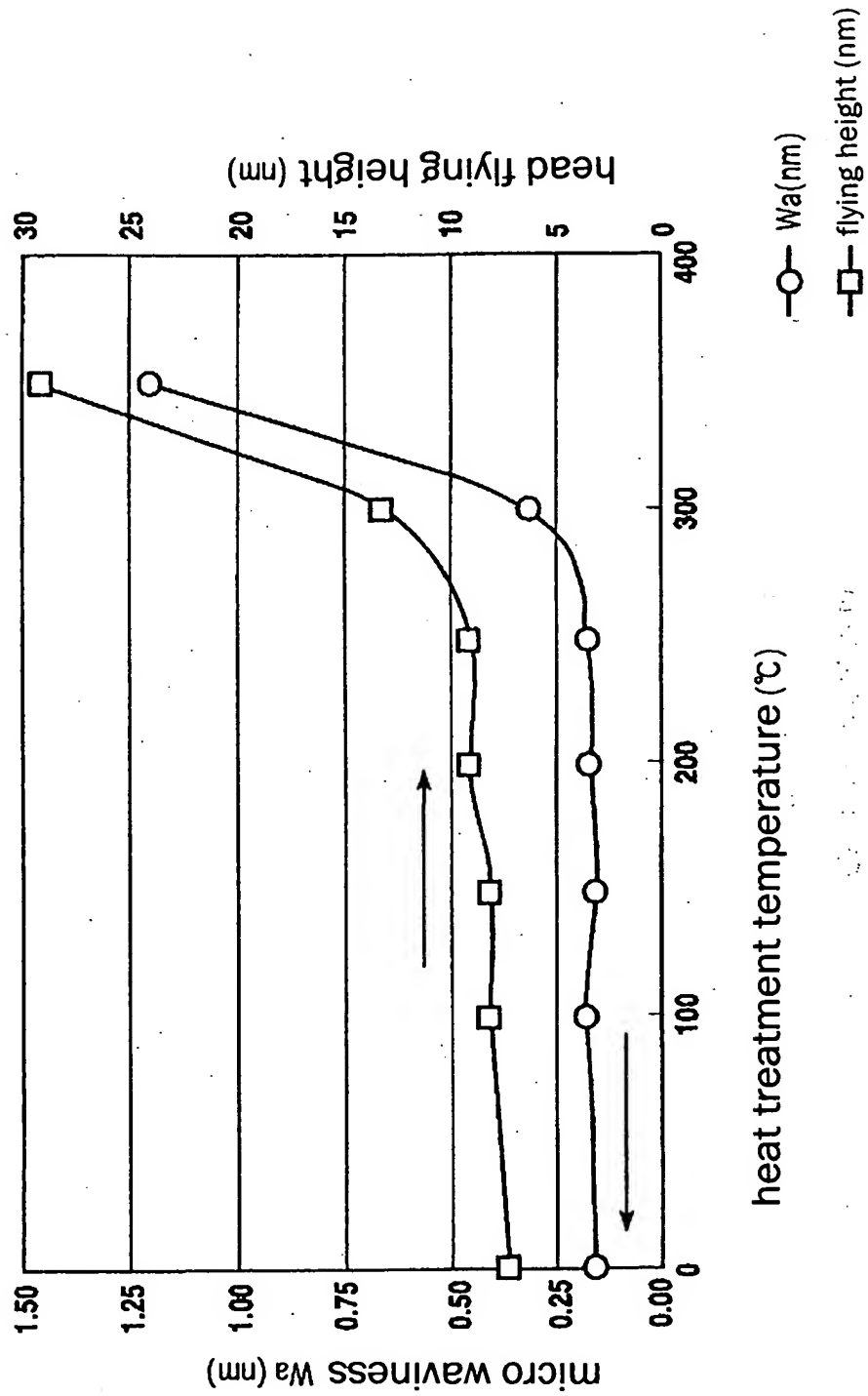


Fig. 10